

Date Signed: June 20, 1979

MEMORANDUM

SUBJECT: Guidance for Operation and Maintenance (O&M) Plans for ICCs

FROM: James F. Manwaring, Chief (signed by James Manwaring)
Drinking Water Branch (WH-550)

TO: Regional Water Supply Representatives, I-X

This memo should be considered as guidance for evaluating the Operation and Maintenance (O&M) plans as a replacement for the quarterly bacteriological analysis. The following has been developed from our discussions with the Interstate Carrier Conveyance (ICC) industry and is presented for your reference.

An acceptable practice for flushing and disinfecting the drinking water systems on-board the conveyance has been described as follows:

- (1) Open all taps and completely drain water from the conveyance water tanks.
- (2) A chlorine solution is fed into the conveyance water system until 100 ppm of total residual is read at all taps.
- (3) The above system is allowed to stand at least an hour and then is drained through all taps until completely empty.
- (4) The system is then refilled with drinking water from an approved source and allowed to overflow for two minutes.

Since the O&M program is an option to be exercised in lieu of the requirement for quarterly microbiological monitoring, the flush and disinfection procedures for on-board systems shall be applied at least twice annually. The water service vehicles which are used to load drinking water on the conveyance shall be included in the O&M program. Such vehicles shall be flushed and disinfected at least once a month. In the event that this O&M procedure causes a significant adverse effect on the conveyance operator resources, the EPA Regional Offices may modify this requirement. It is the responsibility of the conveyance operator to demonstrate that modification of O&M procedures will not adversely affect the quality of drinking water on-board. The records associated with the O&M procedures shall be maintained by the conveyance operator for five years. This determination is predicated on the National Interim Primary Drinking Water Regulations Section 141.33 - Record Maintenance.

The aforementioned example of an acceptable flush and disinfection procedure is not the

only procedure that should be considered acceptable. All procedures submitted by conveyance operators, including alternate disinfectants, should be considered on an individual basis. The conveyance operator shall be responsible for providing proof of the adequacy of his plan, including information on the toxicity of alternate disinfectants to humans. Recommendations on the acceptability of such disinfections shall be provided by EPA, ODW Headquarters, upon request from the Region. If the conveyance on-board drinking water system or water service vehicle water system is in any way serviced or repaired, the system shall be flushed and disinfected prior being returned to service.

The documentation describing the O&M plan which is submitted by the conveyance operator should contain the following:

- (1) A cover letter which includes a summary of the water handling procedures and O&M program documentation. Included in the summary should be estimated time interval for service of conveyance drinking water system; a brief description of the disinfection procedures; and a description of intended annual report data.
- (2) Actual detailed documentation of the disinfection procedures (i.e. excerpts from maintenance manuals and examples of maintenance inspection forms).
- (3) Procedure for on-board water treatment. If carbon filters are employed on conveyance, a description of operating procedures is required. The description should indicate filter capacity, estimated flow rate, service interval, chlorine residual of water used to charge on-board system and whether water is chlorinated by operator.

The approval of the O&M plans shall have a term of one year, initially. At such time when program experience demonstrates, the approval period may be altered.

It is important that ICC operators which choose the O&M option, have their plans approved within three months of the June 24, implementation date. The conveyance operators which do not have approved plans by September 24, will be required to perform a quarterly bacteriological analysis of all their conveyances, or be in violation of the regulations.

Approval of the O&M plans is the responsibility of the Regions. Assistance from Headquarters is available on request. Any significant deviation from the O&M requirements of this guidance should be discussed with Headquarters prior to approval by Regions. The Headquarters concurrence stipulated in Water Supply 56A, can be handled via telephone communication.

***May possibly be updated. Contact Steve Clark at Headquarters for further information regarding ICC Guidances.**